Health Care Financing Program Statistics

Medicare: Use of Home Health Services, 1977

Published by the Health Care Financing Administration
Office of Research, Demonstrations, and Statistics

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Medicare—Use of Home Health Services: 1977

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Published by
Department of Health and Human Services
Health Care Financing Administration
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and Statistics

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Introduction

This report presents 1977 data on the use of home health agency services by aged and disabled recipients of Medicare benefits. Time trends are presented for selected measures to highlight significant changes which have occurred in home health care use during the 1969-1977 period.

The remainder of this section presents background information on Medicare coverage of home health services, summarizes the major findings of the study, and outlines the content of the remainder of the report.

BACKGROUND

The Medicare program was enacted on July 30, 1965 as Title XVIII of the Social Security Act, and became effective on July 1, 1966. The program offers two separate but coordinated insurance coverages—Hospital Insurance (HI), also referred to as Part A, and Supplementary Medical Insurance (SMI), also referred to as Part B. Both provide reimbursement for home health agency (HHA) services.

The legislation established requirements for patient eligibility, reimbursable costs, physician participation and agency eligibility.

To qualify for HHA services, a beneficiary must be: (1) under the care of a physician; (2) confined to his home; and (3) in need of intermittent skilled nursing care or physical or speech therapy. Other reimbursable services are occupational therapy, medical social services, and home health aide services. Covered services also include medical supplies and the use of medical appliances. A physician must determine the need for services and set up a patient care plan for home health services. The HHA providing services must be certified for participation in Medicare.

Coverage under the HI part of the program provides for payment of the reasonable cost of up to 100 home health visits after the start of one benefit period [1] and before the start of another. Payment for these visits can be made within one year following the patient's most recent discharge from a qualifying hospital or from a covered skilled nursing facility stay. A qualifying hospital stay is a hospital stay of at least 3 consecutive days. A plan of treatment must be established by the patient's physician within 14 days after discharge from the hospital or skilled nursing facility. The services must be necessary for further treatment of the condition for which the patient received services in the hospital or skilled nursing facility.

Coverage under the SMI part of the program is limited to 100 visits within a calendar year. No prior stay in a hospital or skilled nursing facility is required. Otherwise, the requirements for coverage are the same as those under HI. SMI may be used to cover home health visits after benefits under HI are exhausted. Thus, 100 visits are available under HI for each benefit period, but SMI benefits are limited to 100 visits per calendar year.

To provide incentives for greater use of home health services, as opposed to inpatient hospital or skilled nursing facility services, and to simplify administrative problems relating to the payment of HHA services, the Social Security Amendments of 1972 made the following changes in HHA coverage, which greatly affected use and costs:

- The 20-percent coinsurance for SMI coverage of home health services furnished on or after January 1, 1973 was eliminated.
- The Secretary of HEW was authorized to establish, by diagnosis, periods of coverage of home health care under the hospital insurance part of Medicare for individuals with specified conditions.
- Payments were allowed for services that neither the home health agency nor the beneficiary knew, or could reasonably have been expected to know, were not covered.
- Coverage (including HHA services) was extended to persons receiving Social Security benefits based on disability or end-stage renal disease. This coverage began in July 1973.[2]

[1] A benefit period begins with the first day a patient receives inpatient hospital or skilled nursing services and ends after 60 consecutive days in which the patient was an inpatient of neither a hospital nor a skilled nursing facility. There is no limit to the number of benefit periods to which a patient is entitled.

[2] Title XVIII of the Social Security Act as amended by P.L. 92-603 (H.R.I.), October 30, 1972.

MAJOR FINDINGS

The following items are the major findings of this report:

Reimbursement Trends, 1969-1977

- In 1969, Medicare reimbursement for home health services was $78 million and constituted 1.2 percent of all Medicare reimbursements.
- Policy guidelines, issued in 1969, defined more precisely the circumstances under which home health services would be covered. The effect was to reduce the amounts reimbursed for home health services. By 1971, reimbursements for home health services dropped to $56.8 million and constituted only about three-fourths of one percent of all Medicare requirements.
- The Social Security Amendments of 1972 simplified administrative problems relating to payment for home health services, removed the coinsurance provisions, and extended Medicare coverage to disabled persons and to persons with end-stage renal disease. The result was an increase in the use of home health services, so that by 1977 reimbursements were $363.8 million, 1.8 percent of all Medicare reimbursements.

Use and Charges, 1974-1977

- The proportion of beneficiaries receiving HHA services increased 58 percent, increasing the proportion of beneficiaries receiving home health visits from 16.5 to 26.1 per 1,000 enrolled.
- Home health visits increased at an average annual rate of almost 25 percent between 1974 and 1977, from 8.1 million to 15.5 million. The rate of visits increased from 348 visits per 1,000 enrolled to 613 per 1,000. The average number of visits per person served increased from almost 21 to almost 23, about 9 percent.
- Between 1974 and 1977, total charges for home health services increased at an average annual rate of almost 40 percent, from $147.5 million to $407.8 million. The average charge incurred by persons using HHA services increased from $376 to $591.
- HHA payments increased at a greater rate than total Medicare payments, from 1.2 percent of total Medicare payments in 1974 to 1.8 percent in 1976.

Use and Charges by Demographic Characteristics, 1977

- An estimated 690,000 persons received reimbursable HHA services in 1977, a rate of 26.1 persons served per 1,000 enrolled.
- More than 15.5 million HHA visits were provided, a mean of almost 23 and a median of about 12 visits per person served.
- Persons using HHA services incurred charges of $407.8 million, an average of $591 per person served.
- Medicare reimbursement amounted to $363.8 million, an average of $527 per person served.
- Eighty-nine percent of the total charges recorded were reimbursed.[3]
- Sixty-three percent of the persons served received services under HI only; 26 percent received services under SMI only, while the remaining 11 percent received services under both programs.
- The proportion of beneficiaries 75 years of age and over receiving HHA services (42 per 1,000 enrolled) was about two and one-half times greater than the rate for persons under 75 (17 per 1,000 enrolled). Within each age category, there was no difference in the number of services per user.
- A higher proportion of women (29 per 1,000 enrolled) received HHA services than did men (22 per 1,000 enrolled). There was little difference in the number of services per user, regardless of whether the beneficiary was male or female.
- A higher proportion of persons of other races (30 per 1,000 enrolled) received HHA services than did whites (26 per 1,000 enrolled). Persons of other races also tended to receive more visits per user than whites received (24 vs. 22).
- Regionally, the number of persons served per 1,000 enrolled ranged from 36.5 in the Northeast to 20.4 in the North Central States; the highest average number of visits per person served was 24.4 in the South compared to the low of 20.2 in the West; charges per person served in the South averaged $690 compared to less than $600 in the other regions.
- By State, the number of persons served per 1,000 enrolled ranged from 65.6 in Vermont to 6.0 in North Dakota; the average number of visits per person served exceeded 30 in Mississippi, Louisiana, and Puerto Rico in contrast to less than 15 per person in Arkansas and Oklahoma; total charges per person served in Mississippi averaged $1,107 compared to $163 per person in South Dakota.

Distribution of Visits and Charges by Type of Home Health Agency

- Visiting Nurses Associations (VNA's) furnished more home health visits than any other type of HHA in 1977. They provided 5.7 million visits (36 percent of all HHA visits) to 273,200 Medicare beneficiaries (40 percent of all persons served).
- Between 1975 and 1977, private nonprofit HHA's had the most rapid rate of growth. They accounted for 45 percent of the increase in the number of visits furnished by HHA's between 1975 and 1977.

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[3] Reimbursement is based on the HHA's projected cost of operation for the fiscal year that is agreed on by the home health agency and intermediary. The intermediary determines the appropriate percentage, not to exceed 100 percent of charges.

In the process, they almost doubled their proportion of persons served by HHA's, and increased their share of visits furnished by HHA's from 15 percent to almost 25 percent.

- Private nonprofit HHA's had the highest number of visits per person served, the highest charge per visit, and the highest total charges per person served. In 1977, these agencies served 19 percent of all persons served by HHA's, and accounted for 24 percent of the visits and almost 31 percent of the HHA visit charges billed to the Medicare program.
- The different types of HHA's do not differ significantly in the average number of visits furnished per user by type of visit. There is a wider range among HHA's in the proportion of their clientele receiving specific types of visits. This suggests that the different types of HHA visits tend to be additive rather than substitutive; that is, the provision of one type of visit to a client does not appear to affect the number of visits of another type furnished to the client.

Availability of Nursing Services

- Areas which rank high in the relative number of nurses employed by HHA's tend to rank high in the proportion of beneficiaries receiving home nursing services. There is no relationship, however, between the average number of nursing services received per person served and the supply of nurses.

The remainder of this report consists of three sections. Section II discusses trends in HHA utilization and reimbursement from 1974 to 1977. Program data for 1977 is analyzed from the viewpoint of the residence and demographic characteristics of persons using HHA services. Section III analyzes the distribution of HHA services and charges by type of agency. Section IV discusses the major implications of the findings.

Utilization Statistics

This section presents significant data regarding trends in reimbursement patterns; the number and characteristics of persons served and services provided; geographic differences in the distribution of services; categories of services provided; and type of coverage utilized. Statistical tables are accompanied by explanatory text analyzing the significance of the data presented.

REIMBURSEMENT TRENDS, 1969-1977

General Table 1 shows that, although total Medicare reimbursements increased each year since 1969, reimbursements for home health services decreased in 1970 and 1971. By 1971, reimbursements for home

TABLE 1

Total Medicare Reimbursement, Reimbursements for Home Health Services, and Number of Home Health Visits under Medicare, Calendar Years 1969-1977

(Numbers and Amounts in Millions)

	Total Medicare Reimbursement [1]		Home Health Agency Reimbursement [1]			Home Heatlh Visits	
Year	Amount	Percent Change	Amount	Percent Change	As Percent of Total Medicare Reimburse-ment	Number	Percent Change
1969 [2]	6,284.0	—	78.1	—	1.24	8.5	—
1970	6,772.4	7.8	61.5	—21.2	.91	6.0	—29.9
1971	7,486.9	10.6	56.8	— 7.7	.76	4.8	—20.5
1972	8,216.1	9.7	65.9	16.6	.80	5.2	9.2
1973	9,637.8	17.3	92.9	40.8	.96	6.4	22.4
1974	11,898.0	23.5	144.3	55.4	1.21	8.2	29.3
1975	14,712.2	23.7	217.0	50.4	1.47	10.8	32.3
1976	17,829.0	21.2	294.6	35.8	1.65	13.5	24.4
1977	20,752.0	16.4	363.8	23.5	1.75	15.5	14.9

[1] The amounts reimbursed are based on interim rates which are adjusted after the end of each provider's accounting year on the basis of reasonable costs of operations. Retroactive reimbursements are excluded from the data in these tables.
[2] Comparative data for years prior to 1969 are not available.

SOURCE: Health Care Financing Administration, unpublished utilization statistics. Amounts are for year in which expenses were incurred, based on bills processed through December 1978. Thus, data for most recent years are less complete than data for earlier years.

health services dropped to only three-fourths of one percent of total Medicare reimbursements, the lowest percentage in the history of the program. This decrease was due to policy guidelines, issued by the Social Security Administration (SSA) in August 1969, that defined more precisely the conditions for which reimbursement for home health services would be allowed.

Reimbursements for home health services increased significantly in 1972 and each subsequent year. The increase in use after 1972 was stimulated by the provisions in the 1972 amendments to the Social Security Act which expanded payments and coverage for home health care and extended coverage to disabled persons and those with end-stage renal disease. By 1974, HHA reimbursements contributed the same proportion of total Medicare payments as they did in 1969.

Between 1975 and 1977, reimbursements for home health services increased almost 68 percent, compared to an overall increase of 41 percent in total Medicare reimbursement during the same period. In 1977, HHA payments continued to increase at a greater rate than total Medicare payments and constituted 1.8 percent of total Medicare payments.

PERSONS SERVED, VISITS PROVIDED, AND CHARGES INCURRED, 1974-1977

In 1977, about 690,000 persons received home health services covered under Medicare, compared to 393,000 in 1974 (General Table 2). The proportion of Medicare beneficiaries receiving home health services increased 58 percent, from 16.5 per 1,000 enrolled in 1974 to 26.1 per 1,000 in 1977.

TABLE 2

Number of Persons Served, Number of Visits, and Amount of Charges, by Region 1974-1977
(Numbers and Amounts in Thousands)

Geographic Area and Year	Persons Served		Visits		Visit Charges		Total Charges [1]	
	Number	Per 1,000 Enrollees	Number	Per Person Served	Amount	Per Visit	Amount	Per Person Served
Total, All areas								
1974	392.7	16.5	8,070	20.6	$137,406	$17	$147,499	$376
1975	499.6	20.2	10,805	21.6	211,994	20	227,001	454
1976	588.7	22.9	13,335	22.7	292,697	22	312,325	531
1977	689.7	26.1	15,548	22.5	385,224	25	407,827	591
Northeast								
1974	143.8	24.4	2,899	20.2	47,166	16	50,376	350
1975	175.9	29.2	3,655	20.8	67,848	19	71,259	405
1976	198.1	32.2	4,201	21.2	85,617	20	89,853	454
1977	229.7	36.5	5,106	22.2	113,094	22	118,723	517
North Central								
1974	82.8	12.7	1,527	18.4	25,082	16	25,486	308
1975	101.5	15.2	1,958	19.3	36,012	18	37,315	368
1976	118.6	17.4	2,446	20.6	52,498	21	54,195	457
1977	142.2	20.4	3,029	21.3	74,720	25	76,974	541
South								
1974	102.3	13.6	2,417	23.6	42,332	18	47,274	462
1975	139.0	17.7	3,519	25.3	72,831	21	81,060	583
1976	171.7	21.2	4,519	26.3	104,877	23	115,434	672
1977	199.3	23.7	4,870	24.4	127,148	26	137,432	690
West								
1974	60.2	15.9	1,087	18.1	20,199	19	21,425	356
1975	78.4	19.9	1,495	19.1	31,523	21	32,908	420
1976	93.1	22.8	1,916	20.6	44,756	23	46,732	502
1977	108.3	25.5	2,188	20.2	57,686	26	60,183	556
Other areas [2]								
1974	3.7	13.2	140	38.3	2,627	19	2,938	803
1975	4.9	16.3	177	36.0	3,732	21	4,459	905
1976	7.3	23.0	252	34.7	4,948	20	6,111	842
1977	10.2	29.9	355	34.8	12,575	35	14,514	1,423

[1] Includes charges for durable medical equipment and supplies in addition to visit charges.
[2] Includes Puerto Rico, the Virgin Islands, Guam, other outlying areas, and residence unknown.

The number of visits provided increased from 8.1 million in 1974 (348 per 1,000 enrolled) to 15.5 million in 1977 (613 per 1,000 enrolled), an average annual increase of almost 25 percent in the number of visits. The average number of visits per person served increased from 20.6 in 1974 to 22.5 in 1977, an increase of 9 percent. However, because a large number of persons served received relatively few visits, the average number of visits per person served is much larger than the median (50th percentile) number of visits per person. Thus, in 1977, though the mean number of visits per person served was 22.5, the median was 12.1 visits. That is, half of the persons receiving home health visits received 12.1 visits or less. Ten percent of the persons served received 56.1 visits or more (Table 3). Total charges increased from $147.5 million in 1974 to $407.8 million in 1977, an annual rate of increase of about 40 percent. Total charges shown include charges for durable medical equipment and supplies furnished by home health agencies in addition to the charges for personnel on a visit basis.

Use of home health services increased in all geographic regions between 1974 and 1977. The greatest increase occurred in the South where the number of persons served increased by 95 percent and the number of visits and charges increased by 101 percent and 191 percent, respectively.

In 1977, although only 24 percent of the Medicare beneficiaries lived in the Northeast, they accounted for one-third of the persons served and visits provided. Beneficiaries in the South received the most visits per person served and had the highest charges per person served. On an individual basis, much greater use of home health services was recorded for beneficiaries residing in areas outside the United States, such as Puerto Rico, the Virgin Islands, and other outlying areas. These areas accounted for about 2.5 percent of all reimbursement for HHA services.

TABLE 3

Number of Persons Served, Number of Visits, and Selected Percentiles, by Type of Agency, 1977
(in Thousands)

Type of Agency	Persons Served	Visits	Visits Per Person	Percentiles (Visits)			
				50th	60th	75th	90th
All Agencies	689.7	15,548	22.5	12.1	16.6	27.8	56.1
Visiting Nurse Association	273.2	5,655	20.7	10.6	14.4	24.7	51.9
Combined Government and Voluntary	19.6	366	18.7	9.0	12.4	22.4	48.1
Government	141.8	2,968	20.9	11.0	14.8	25.2	52.0
Hospital Based	74.4	1,565	21.0	12.1	16.1	26.2	50.4
Proprietary	31.8	846	26.6	15.1	20.5	33.5	64.6
Private Nonprofit	133.9	3,800	28.4	17.2	23.3	37.1	68.9
Other	14.9	347	23.4	13.7	18.6	29.7	56.7

DISTRIBUTION OF POPULATION SERVED, 1977

Table 4 shows that there were significant regional differences in utilization patterns of HHA services. The proportion of beneficiaries served ranged from 36.5 per 1,000 in the Northeast to 20.4 per 1,000 in the North Central States. The highest average number of visits per person served was 24.4 in the South compared to the low of 20.2 in the West. Average charges per person served were also higher in the South—$690 compared to less than $600 in the other regions.

Differences were more pronounced among the individual States. The number of persons served per 1,000 enrollees ranged from 65.6 in Vermont to 6.0 in North Dakota. Over 38 visits and charges of $1,107 per person served were recorded for beneficiaries residing in Mississippi. Louisiana recorded an average of 34 visits per person served, with average charges of $930. In contrast, less than 15 visits per person were recorded for beneficiaries in Arkansas and Oklahoma. Average total charges per person served ranged from $1,107 in Mississippi to $163 in South Dakota.

TABLE 4

Number of Persons Served, Number of Visits, and Amount of Charges, by Geographic Area, 1977
(Numbers and Amounts in Thousands)

	Persons Served		Visits		Visit Charges		Total Charges		Total Reimbursement	
Geographic Area	Number	Per 1,000 Enrollees	Number	Per Person Served	Amount	Per Visit	Amount	Per Person Served	Amount	Per Person Served
Total, all areas	689.7	26.1	15,548	22.5	$385,224	$25	$407,827	$591	$363,785	$527
United States	679.5	26.2	15,193	22.4	372,648	25	393,312	579	354,598	522
Northeast	229.7	36.5	5,106	22.2	113,094	22	118,723	517	110,928	483
North Central	142.2	20.4	3,029	21.3	74,720	25	76,974	541	69,640	490
South	199.3	23.7	4,870	24.4	127,148	26	137,432	690	117,713	591
West	108.3	25.5	2,188	20.2	57,686	26	60,183	556	56,317	520
Northeast										
New England	68.5	44.1	1,627	23.8	28,698	18	29,199	426	27,739	405
Middle Atlantic	161 2	34.0	3,479	21.6	84,396	24	89,524	555	83,189	516
North Central										
East North Central	102.3	21.9	2,083	20.4	55,375	27	56,557	553	51,938	508
West North Central	39.9	17.5	946	23.7	19,345	20	20,417	512	17,702	444
South										
South Atlantic	107.7	25.5	2,435	22.6	65,990	27	69,376	644	62,056	576
East South Central	45.2	26.1	1,209	26.7	29,821	25	33,457	740	26,122	578
West South Central	46.4	18.8	1,226	26.4	31,337	26	34,599	746	29,535	637
West										
Mountain	24.1	23.7	530	22.0	10,952	21	11,566	480	10,912	453
Pacific	84.2	26.1	1,658	19.7	46,734	28	48,617	577	45,405	539
New England	68.5	44.1	1,627	23.8	28,698	18	29,199	426	27,739	405
Maine	6.7	45.0	144	21.5	2,797	19	2,838	424	2,699	403
New Hampshire	4.7	45.2	96	20.7	1,301	14	1,307	281	1,237	266
Vermont	4.0	65.6	102	25.6	1,644	16	1,652	413	1,597	400
Massachusetts	30.9	41.6	729	23.6	12,652	17	12,931	419	12,169	394
Rhode Island	5.5	42.3	132	24.0	2,320	18	2,373	432	2,326	424
Connecticut	16.7	45.8	424	25.4	7,984	19	8,098	484	7,711	460
Middle Atlantic	161.2	34.0	3,479	21.6	84,396	24	89,524	405	83,189	516
New York	62.7	27.5	1,317	21.0	37,326	28	39,977	638	36,710	586
New Jersey	32.3	36.7	871	27.0	19,000	22	19,824	614	19,654	609
Pennsylvania	66.2	42.0	1,291	19.5	28,070	22	29,723	449	26,825	405
East North Central	102.3	21.9	2,083	20.4	55,375	27	56,557	553	51,938	508
Ohio	30.6	24.9	558	18.2	12,894	23	13,230	432	12,568	411
Indiana	6.7	11.0	127	18.9	2,445	19	2,624	390	2,479	369
Illinois	30.2	23.3	774	25.6	23,805	31	24,182	801	21,029	697
Michigan	21.7	22.4	352	16.3	10,895	31	11,006	508	10,540	487
Wisconsin	13.1	22.5	272	20.7	5,336	20	5,515	421	5,322	406

(Continued)

TABLE 4 (Continued)

Number of Persons Served, Number of Visits, and Amount of Charges, by Geographic Area, 1977

(Numbers and Amounts in Thousands)

Geographic Area	Persons Served		Visits		Visit Charges		Total Charges		Total Reimbursement	
	Number	Per 1,000 Enrollees	Number	Per Person Served	Amount	Per Visit	Amount	Per Person Served	Amount	Per Person Served
West North Central	39.9	17.5	946	23.7	19,345	20	20,417	512	17,702	444
Minnesota	6.5	13.3	133	20.5	2,734	21	2,845	440	2,769	428
Iowa	4.6	11.4	92	19.8	1,170	13	1,193	258	1,149	249
Missouri	20.8	30.7	560	27.0	12,663	23	13,440	647	11,032	531
North Dakota	.5	6.0	13	23.2	165	13	181	335	177	328
South Dakota	.9	9.5	20	21.5	144	7	151	163	141	153
Nebraska	3.4	16.0	62	18.2	1,217	20	1,330	390	1,284	377
Kansas	3.2	10.2	66	21.0	1,252	19	1,277	405	1,150	365
South Atlantic	107.7	25.5	2,435	22.6	65,990	27	69,376	644	62,056	576
Delaware	1.8	30.0	47	26.7	746	16	776	441	742	422
Maryland	10.5	27.1	204	19.3	5,020	25	5,104	485	4,962	471
District of Columbia	3.1	39.7	70	22.5	2,067	30	2,098	675	1,835	590
Virginia	6.7	13.2	137	20.3	3,153	23	3,171	470	3,080	456
West Virginia	4.7	17.8	93	20.0	1,990	21	2,145	461	1,835	395
North Carolina	12.3	20.2	297	24.2	5,837	20	6,287	511	6,120	497
South Carolina	7.4	25.3	116	15.8	2,994	26	3,309	449	3,100	421
Georgia	7.3	13.7	144	19.6	4,013	28	4,438	606	3,937	538
Florida	53.9	36.2	1,327	24.6	40,170	30	42,048	780	36,445	676
East South Central	45.2	26.1	1,209	26.7	29,821	25	33,457	740	26,122	578
Kentucky	8.0	18.2	138	17.2	3,214	23	3,608	450	3,393	423
Tennessee	12.9	24.2	309	23.9	7,355	24	8,361	646	6,713	519
Alabama	11.7	25.8	279	23.9	7,013	25	7,496	643	6,661	571
Mississippi	12.6	41.2	483	38.2	12,239	25	13,993	1,107	9,355	740
West South Central	46.4	18.8	1,226	26.4	31,337	26	34,599	746	29,535	637
Arkansas	2.7	8.3	40	14.6	1,029	26	1,089	401	1,040	383
Louisiana	12.3	29.6	424	34.4	10,097	24	11,459	930	9,128	741
Oklahoma	3.5	9.2	49	14.1	1,408	29	1,462	419	1,234	354
Texas	27.9	20.8	713	25.6	18,803	26	20,589	739	18,133	651
Mountain	24.1	23.7	530	22.0	10,952	21	11,566	480	10,912	453
Montana	2.2	25.0	55	25.3	866	16	878	404	769	354
Idaho	2.8	29.8	72	25.8	1,358	19	1,536	552	1,510	542
Wyoming	.8	21.1	23	28.8	453	20	463	590	377	480
Colorado	6.9	28.0	132	19.1	3,368	25	3,396	491	3,328	481
New Mexico	3.3	28.9	70	21.0	1,335	19	1,395	417	1,282	384
Arizona	5.4	19.7	114	21.4	2,525	22	2,792	521	2,577	481
Utah	1.8	17.0	38	21.0	574	15	621	340	599	328
Nevada	.9	15.5	26	28.1	473	18	485	523	470	507
Pacific	84.2	26.1	1,658	19.7	46,734	28	48,617	577	45,405	539
Washington	10.1	23.7	182	18.0	5,053	28	5,245	517	4,710	464
Oregon	6.9	22.8	125	18.1	3,554	29	3,867	563	3,702	538
California	65.4	27.0	1,316	20.1	37,326	28	38,570	590	36,108	552
Alaska	.1	10.0	2	15.8	52	32	53	514	51	502
Hawaii	1.7	24.3	33	19.1	749	23	882	518	834	490
Other areas [1]	10.2	29.9	355	34.8	12,575	35	14,514	1,423	9,187	901

[1] Includes Puerto Rico, the Virgin Islands, other outlying areas and residence unknown.

USE BY TYPE OF MEDICARE COVERAGE, 1977

Table 5 shows the distribution of persons receiving home health services, by number of visits and type of coverage, under Medicare in 1977. More than 437,000 persons (63 percent of all persons served) received services under HI only. An additional 177,400 persons (26 percent) received services under SMI only; while 75,000 persons, or 11 percent of the total, received services under both programs. About 21,600 persons received 100 or more visits in 1977. Although accounting for only 3 percent of those served, they used 18.4 percent of the total visits. Persons receiving 50 or more visits constituted about 12 percent of the persons served and used 46 percent of the visits. In contrast, 43 percent of the persons served received fewer than 10 visits and accounted for only 8.5 percent of the total visits. The data in Table 5 indicate that a relatively small number of persons received the major share of visits under the program and most persons received relatively few visits.

The persons who received home health services under both parts of the Medicare program (11 percent of all persons served) averaged more than 56 visits. The number of persons served, by type of coverage, is shown in the following table.

Type of Coverage	Persons Served	
	Percentage Distribution	Average Number of Visits
Total	100.00	22.5
HI and SMI	10.9	56.5
HI only	63.4	18.7
SMI only	25.7	17.8

About 2,700 beneficiaries using HHA services (.4 percent of those served) exhausted the 100 visits allowed under SMI. If a person is eligible for services under both programs, the services are charged under HI. However, if the 100 visits allowed in a benefit period under HI are exhausted, benefits under SMI may be used.

USE BY DEMOGRAPHIC CHARACTERISTICS, 1977

The use of home health services differed by demographic characteristics, as shown in Table 6. Among beneficiaries aged 75 and over, about 42 per 1,000 enrolled received HHA services compared to about 17 per 1,000 among those under 75 years of age. The average number of visits per person served was about the same for both groups, about 22.5. Because of the difference in the proportions served, persons 75 years of age and over, who accounted for 36 percent of the Medicare enrollees, received 58 percent of the HHA visits. A higher proportion of women received HHA services than did men (29 women per 1,000 enrolled compared to 22 men per 1,000 enrolled). Women who received HHA services averaged 23 visits compared to 22 for men. Women constituted about 57 percent of the enrollment, but received about 65 percent of the vistis. Women usually live longer than men, are more likely to be widowed, and often have greater need of outside supports during their confinement to the home as a result of illness.

Beneficiaries who received home health services in 1977 are grouped by race in this report as "white," "other," and "unknown." Home health services were

TABLE 5

Number and Percentage Distribution of Persons Served by Number of Visits and Type of Coverage, 1977
(in Thousands)

Number of Visits	TOTAL				Hospital Insurance Only		Supplementary Medical Insurance Only		Hospital and Medical Insurance	
	Persons Served		Visits		Persons Served	Percent	Persons Served	Percent	Persons Served	Percent
	Number	Percent	Number	Percent						
Total	689.7	100.0	15,548	100.0	437.2	100.0	177.4	100.0	75.0	100.0
1-4	153.0	22.2	377	2.4	100.2	22.9	51.3	28.9	1.5	2.0
5-9	138.5	20.9	946	6.1	96.9	22.2	36.3	20.4	5.3	7.1
10-19	156.2	22.6	2,163	13.9	102.5	23.4	40.0	22.5	13.7	18.3
20-29	80.2	11.6	1,931	12.4	51.4	11.8	18.1	10.2	10.7	14.2
30-39	46.3	6.7	1,578	10.1	29.4	6.7	9.5	5.3	7.4	9.8
40-49	30.8	4.5	1,362	8.8	18.6	4.3	6.2	3.5	6.0	8.0
50-99	63.0	9.1	4,326	27.8	34.4	7.9	13.4	7.5	15.2	20.2
100 or more	21.6	3.1	2,865	18.4	3.6	.8	2.7	1.5	15.2	20.3

TABLE 6

Number and Percentage Distribution of Persons Served, Visits, and Amount of Charges, by Selected Demographic Characteristics, 1977

(Numbers and Amounts in Thousands)

	Persons Served						
	Enrollees	Number	Per 1,000 Enrollees	Visits	Visit Charges	Total Charges	Total Reimburse-ment
Total	26,458	689.7	26.1	15,548	$385,224	$407,827	$363,785
Age:							
Under 65	2,619	50.1	19.1	1,275	31,580	33,663	30,287
65-66	3,349	36.9	11.0	782	19,810	21,012	18,878
67-68	3,150	44.2	14.0	976	24,796	26,330	23,477
69-70	2,932	49.6	16.9	1,079	27,796	28,771	25,766
71-72	2,585	54.0	20.9	1,202	30,295	31,993	28,558
73-74	2,310	57.2	24.8	1,267	31,943	33,661	30,082
75-76	4,463	146.1	32.7	3,284	81,736	86,208	76,971
80-84	2,963	134.4	45.4	3,004	73,482	77,559	69,018
85 and over	2,086	117.1	56.1	2,681	64,325	68,630	60,747
Sex:							
Male	11,296	250.5	22.2	5,461	137,131	146,713	130,412
Female	15,162	439.2	29.0	10,088	248,092	261,114	233,372
Race:							
White	23,285	598.2	25.7	13,397	328,166	347,063	310,671
Other	2,472	74.5	30.1	1,784	48,134	51,294	44,616
Unknown	701	17.0	24.3	368	8,922	9,470	8,498
Medicare Status:							
Aged	23,838	642.9	27.0	14,332	355,178	375,769	334,957
Disabled	2,619	46.8	17.9	1,217	30,045	32,058	28,827
	Percentage Distribution						
Total	100.0	100.0		100.0	100.0	100.0	100.0
Age:							
Under 65	9.9	7.3		8.2	8.2	8.3	8.3
65-66	12.7	5.4		5.0	5.1	5.2	5.2
67-68	11.9	6.4		6.3	6.4	6.5	6.5
69-70	11.1	7.2		6.9	7.1	7.1	7.1
71-72	9.8	7.8		7.7	7.9	7.8	7.9
73-74	8.7	8.3		8.1	8.3	8.3	8.3
75-76	16.9	21.2		21.1	21.2	21.1	21.2
80-84	11.2	19.5		19.3	19.1	19.0	19.0
85 and over	7.9	17.0		17.2	16.7	16.8	16.7
Sex:							
Male	42.7	36.3		35.1	35.6	36.0	35.8
Female	57.3	63.7		64.9	64.4	64.0	64.2
Race:							
White	88.0	86.7		86.2	85.2	85.1	85.4
Other	9.3	10.8		11.5	12.5	12.6	12.3
Unknown	2.6	2.5		2.4	2.3	2.3	2.3
Medicare Status:							
Aged	90.1	93.2		92.2	92.2	92.1	92.1
Disabled	9.9	6.8		7.8	7.8	7.9	7.9

provided to almost 26 white beneficiaries per 1,000 enrolled compared to 30 per 1,000 for persons of other races. Persons of other races averaged about 24 visits per person served compared to about 22 for whites.

Among beneficiaries eligible to receive Medicare benefits by virtue of being over 65 years of age, 27 per 1,000 enrolled received HHA services. Among persons eligible because of disability, including those with end-stage renal disease, 18 per 1,000 enrolled received HHA services. However, the disabled received more visits per person served (26) than the aged (22).

USE BY METROPOLITAN AND NONMETROPOLITAN AREAS, 1977

Much concern has been expressed in regard to the uneven availability of Medicare home health services in urban and rural areas. Table 7 shows use of home health services for Medicare beneficiaries residing in metropolitan and nonmetropolitan counties during 1977. The division of counties into metropolitan and nonmetropolitan groups is based on the list of standard

TABLE 7

Number of Persons Served, Number of Visits, and Amount of Charges, by Division and Metropolitan and Nonmetropolitan Areas, 1977

(Numbers and Amounts in Thousands)

Area of Residence	Persons Served		Visits		Visit Charges		Total Charges	
	Number	Per 1,000 Enrolled	Number	Per Person Served	Amount	Per Visit	Amount	Per Person Served
United States	679.5	26.2	15,193	22.4	$372,648	$25	$393,312	$591
Metropolitan counties	519.1	29.3	11,400	22.1	293,110	26	308,288	601
Nonmetropolitan counties	160.4	19.6	3,793	24.0	79,537	22	85,023	559
New England	68.5	44.1	1,627	23.8	28,698	18	29,199	426
Metropolitan counties	51.1	42.7	1,201	23.5	21,772	18	22,211	435
Nonmetropolitan counties	17.3	48.9	427	24.6	6,926	16	6,987	403
Middle Atlantic	161.2	34.0	3,479	21.6	84,396	24	89,524	555
Metropolitan counties	137.9	34.2	2,944	21.4	74,896	25	79,823	579
Nonmetropolitan counties	23.3	33.1	536	23.0	9,500	18	9,701	417
East North Central	102.3	21.9	2,083	20.4	55,375	27	56,557	553
Metropolitan counties	81.1	24.3	1,650	20.4	47,053	29	47,933	591
Nonmetropolitan counties	21.2	15.8	433	20.4	8,322	19	8,623	407
West North Central	39.9	17.5	946	23.7	19,345	20	20,417	512
Metropolitan counties	22.9	24.1	540	23.6	11,567	21	12,343	540
Nonmetropolitan counties	17.0	12.9	405	23.8	7,778	19	8,073	474
South Atlantic	107.7	25.5	2,435	22.6	65,990	27	69,376	644
Metropolitan counties	81.6	30.6	1,852	22.7	52,165	28	54,438	667
Nonmetropolitan counties	26.1	16.9	583	22.3	13,825	24	14,939	572
East South Central	45.3	26.1	1,209	26.7	29,821	25	33,457	740
Metropolitan counties	21.1	26.1	545	25.8	14,108	26	15,761	747
Nonmetropolitan counties	24.2	26.2	663	27.4	15,713	24	17,696	732
West South Central	46.4	18.8	1,226	26.4	31,337	26	34,599	746
Metropolitan counties	31.6	22.3	845	26.8	21,842	26	23,967	759
Nonmetropolitan counties	14.8	14.2	381	25.7	9,495	25	10,631	718
Mountain	24.1	23.7	530	22.0	10,952	21	11,566	480
Metropolitan counties	15.5	26.6	308	19.8	6,876	18	7,236	465
Nonmetropolitan counties	8.6	19.9	223	26.0	4,076	22	4,331	506
Pacific	84.2	26.1	1,658	19.7	46,734	28	48,617	577
Metropolitan counties	76.3	28.0	1,515	19.8	42,831	28	44,576	584
Nonmetropolitan counties	7.9	15.8	142	18.1	3,902	22	4,042	514

metropolitan statistical areas (SMSA's).[4] Except in New England, each SMSA includes a county that contains a central city of at least 50,000 inhabitants based on the 1970 census. In addition, contiguous counties are included in the SMSA if they meet certain criteria for economic and social integration with the central city. In New England, SMSA's consist of towns and cities, rather than counties, and are referred to as State economic areas (SEA). Metropolitan counties are those counties that are included in an SMSA or metropolitan SEA.

In 1977, about 68 percent of the persons enrolled for HI and/or SMI lived in metropolitan areas.[5] Three out of every four persons served by home health agencies resided in metropolitan areas. Persons residing in metropolitan areas received 75 percent of the visits, accounting for 79 percent of the recorded visit charges. Persons in nonmetropolitan areas received more visits on the average and at less cost per visit than persons in metropolitan areas.

More than 29 persons per 1,000 enrolled in metropolitan areas received services, while less than 20 persons per 1,000 enrolled in nonmetropolitan areas received services. The data show that persons residing in metropolitan counties are more likely to receive HHA services.

Agency Specific Data

This chapter presents data on the types of home health agencies, the growth of private non-profit agencies, and the distribution of services by agency type.

TYPES AND GEOGRAPHIC DISTRIBUTION OF HOME HEALTH AGENCIES

Home health agencies certified to provide services to Medicare beneficiaries include public, proprietary, voluntary, or private nonprofit agencies that are primarily engaged in providing skilled nursing and other therapeutic services in the home. Types of agencies include: (1) visiting nurse associations; (2) sub-divisions of State or local health departments; (3) combinations of visiting nurse associations and local health departments; and (4) home health care divisions of hospitals or other health care institutions. Private organizations which do not qualify as non-profit groups, exempt from Federal income taxation under Section 501 of the Internal Revenue Code of 1954, must be licensed under State law to be considered for certification as home health agencies under Medicare.

The distribution of agencies that submitted bills for home health services in 1977, by type and geographic division, is shown in Table 8. Nationally, almost one-half of the agencies were administered by State or local health departments.

There were geographic differences by type of agency. Visiting Nurses Associations accounted for two-thirds of all home health agencies in the New England States compared to 1 percent in the East South Central States. In contrast, 71 percent of the agencies in the East South Central States were administered by State or local government compared to 19 percent in New England. Private non-profit agencies were concentrated in the South—58 percent were in the three Southern divisions. A majority of the agencies located outside the United States are classified as private non-profit.

Between 1975 and 1977, the number of private non-profit agencies increased from 225 to 359, an increase of almost 60 percent. During the same period, there were no significant changes in the number of other types of agencies.

DISTRIBUTION OF SERVICES AND CHARGES BY TYPE OF AGENCY

In 1977, nursing visits were the primary service provided by home health agencies under Medicare (Table 9). Over 660,000 beneficiaries (96 percent of the persons served) received nursing care. Home health aide services ranked second with 224,000 persons served, while physical therapy services were provided to about one patient in five. More than 15.5 million visits were recorded for 1977. Of these, about 8.9 million visits, or 57 percent, were for nursing care. An additional 4.6 million visits, or 30 percent, were recorded for home health aide visits. When home health aide services were used, they tended to be used rather heavily—almost 21 visits per person served.

Table 10 shows that visiting nurses' associations (VNA's) furnished more home health visits than any other type of agency in 1977. They provided 5.7 million visits (36 percent of the total) to 273,200 Medicare beneficiaries (40 percent of all persons served). However, between 1975 and 1977, private nonprofit HHA's exhibited a significant growth in the proportion of beneficiaries served and visits provided. As shown in the following table, among the major types of HHA's (those serving at least 10 percent of the HHA Medicare clients), private nonprofit agencies were the only ones to increase their share of persons served and visits furnished.

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[4] National Bureau of Standards, U.S. Department of Commerce, Federal Information Processing Standards Publication 8–3, *Standard Metropolitan Statistical Areas* (Washington, D.C., U.S. Government Printing Office, August 1973).

[5] U.S. Health Care Financing Administration; Office of Research, Demonstrations, and Statistics; *Medicare: Health Insurance for the Aged and Disabled, 1976 and 1977—Enrollment,* Washington, D.C. (in press).

Type of HHA	Proportion of HHA Clients Served			Proportion of Visits Furnished		
	1975	1977	Percent Change 1975-77	1975	1977	Percent Change 1975-77
All Agencies	100.0	100.0	—	100.0	100.0	—
Visiting Nurse Association	46.4	39.6	—14.7	42.2	36.4	—9.0
Combined Government and Voluntary	4.2	2.8	—33.3	3.0	2.4	—20.0
Government	22.5	20.6	—8.4	21.6	19.1	—11.6
Hospital-based	11.5	10.8	—6.1	10.7	10.1	—5.6
Proprietary	3.8	4.6	+21.1	5.6	5.4	—3.6
Private Nonprofit	10.1	19.4	+92.1	15.3	24.4	+59.5
Other	1.5	2.2	+46.7	1.6	2.2	+37.5

TABLE 8

Number and Percentage Distribution of Home Health Agencies that Submitted Bills for Home Health Services, by Type of Agency and U.S. Census Division, 1977

U.S. Census Division	All Agencies	Visiting Nurse Association	Combined Government and Voluntary	Government	Hospital Based	Proprietary	Private Nonprofit	Other
	Number							
Total	2,589	491	45	1,212	293	129	359	60
New England	325	208	6	62	23	—	19	7
Middle Atlantic	279	94	5	75	82	1	17	5
East North Central	395	86	9	198	35	8	51	8
West North Central	289	21	8	196	44	—	14	6
South Atlantic	341	23	5	154	23	28	93	15
East South Central	364	4	4	258	28	17	48	5
West South Central	282	11	2	160	9	27	66	7
Mountain	109	8	4	63	15	7	9	3
Pacific	179	33	1	44	30	40	27	4
Other areas [1]	26	3	1	2	4	1	15	—
	Percentage Distribution							
Total	100.0	19.0	1.7	46.8	11.3	5.0	13.9	2.3
New England	100.0	64.0	1.8	19.1	7.1	—	5.8	2.2
Middle Atlantic	100.0	33.7	1.8	26.9	29.4	0.4	6.1	1.8
East North Central	100.0	21.8	2.3	50.1	8.9	2.0	12.9	2.0
West North Central	100.0	7.3	2.8	67.8	15.2	—	4.8	2.1
South Atlantic	100.0	6.7	1.5	45.2	6.7	8.2	27.3	4.4
East South Central	100.0	1.1	1.1	70.9	7.7	4.7	13.2	1.4
West South Central	100.0	3.9	0.7	56.7	3.2	9.6	23.4	2.5
Mountain	100.0	7.3	3.7	57.8	13.8	6.4	8.3	2.8
Pacific	100.0	18.4	0.6	24.6	16.8	22.3	15.1	2.2
Other areas [1]	100.0	11.5	3.8	7.7	15.4	3.8	57.7	—

[1] Includes Puerto Rico, the Virgin Islands, and Guam.

TABLE 9

Number of Persons Served, Number of Visits, and Amount of Charges, by Type of Visit and Type of Agency, 1977
(Numbers and Amounts in Thousands)

Utilization and Type of Visit	All Agencies	Visting Nurse Associa-tion	Combined Govern-ment and Voluntary	Govern-ment	Hospital Based	Proprie-tary	Private Non-Profit	Other [1]
Persons Served [2]								
Total (in Thousands)	689.7	273.2	19.6	141.8	74.4	31.8	133.9	14.9
Nursing Care	660.5	265.4	19.0	136.4	71.5	29.5	124.6	14.2
Home Health Aide	224.4	79.0	4.8	39.1	18.4	15.9	63.5	3.7
Physical Therapy	155.0	56.4	3.2	24.7	20.4	8.5	39.3	2.5
Other [3]	90.5	31.7	1.3	8.5	12.7	7.1	27.9	1.3
Visits								
Total (in Thousands)	15,548	5,655	366	2,968	1,565	846	3,800	347
Nursing Care	8,888	3,385	230	1,782	938	398	1,918	235
Home Health Aide	4,599	1,616	93	878	356	325	1,256	76
Physical Therapy	1,536	474	28	244	203	95	465	27
Other	527	181	15	65	68	29	161	9
Visit Charges								
Total (in Thousands)	$385,223	121,071	8,815	59,781	45,997	24,078	117,570	7,911
Nursing Care	$228,021	76,169	6,016	39,403	27,026	12,349	61,205	5,618
Home Health Aide	$ 98,787	29,413	1,786	13,821	10,047	7,642	34,658	1,419
Physical Therapy	$ 42,646	10,664	652	5,132	6,472	3,111	15,961	654
Other	$ 15,770	4,825	361	1,425	2,452	976	5,746	220
Average Number of Visits Per Person Served								
Total	22.5	20.7	18.7	20.9	21.0	26.6	28.4	23.4
Nursing Care	12.9	12.4	11.8	12.6	12.6	12.5	14.3	15.8
Home Health Aide	20.5	20.5	19.4	22.5	19.3	20.4	19.8	20.7
Physical Therapy	9.9	8.4	8.8	9.9	9.9	11.2	11.8	10.8
Other	5.8	5.7	11.5	7.6	5.3	4.1	5.8	7.3
Average Visit Charges Per Person Served								
Total	$559	443	450	422	618	757	878	532
Nursing Care	$345	287	317	289	381	419	491	396
Home Health Aide	$440	372	374	354	545	480	545	388
Physical Therapy	$275	189	205	207	317	366	407	261
Other	$174	152	278	168	193	137	206	169
Average Charge Per Visit								
Total	$25	21	24	20	29	28	31	23
Nursing Care	$26	22	26	22	29	31	32	24
Home Health Aide	$21	18	19	16	28	24	28	19
Physical Therapy	$28	22	23	21	32	33	34	24
Other	$30	27	24	22	36	34	36	24

[1] Includes rehabilitation and skilled nursing facility-based agencies.
[2] Detail does not add to total since persons may receive more than one type of service.
[3] Includes speech or occupational therapy, medical social services and other health disciplines.

TABLE 10

Number and Percentage Distribution of Home Health Visits, by Type of Agency and Type of Visit, 1975-1977
(in Thousands)

Year and Type of Agency	Number of Visits					Percentage Distribution				
	Total	Nursing Care	Home Health Aide	Physical Therapy	Other	Total	Nursing Care	Home Health Aid	Physical Therapy	Other
1975—All Agencies										
Total	10,805	6,647	2,840	1,037	281	100.0	61.5	26.3	9.6	2.6
Visiting Nurse Association	4,555	2,942	1,095	407	112	100.0	64.6	24.0	8.9	2.5
Combined Government and Voluntary	332	213	74	30	5	100.0	64.2	22.3	9.0	1.5
Government	2,331	1,493	610	188	39	100.0	64.0	26.2	8.1	1.7
Hospital Based	1,159	743	206	160	51	100.0	64.0	17.8	13.8	4.4
Proprietary	603	262	256	70	16	100.0	43.4	42.4	11.6	2.6
Private Nonprofit	1,656	889	552	166	49	100.0	53.7	33.3	10.0	3.0
Other	177	104	47	18	9	100.0	58.4	26.4	10.1	5.1
1976—All Agencies										
Total	13,335	7,878	3,771	1,281	405	100.0	59.0	28.3	9.6	3.1
Visiting Nurse Association	4,901	3,073	1,278	415	135	100.0	62.7	26.1	8.5	2.7
Combined Government and Voluntary	317	204	77	26	9	100.0	64.6	24.4	8.2	2.8
Government	2,556	1,585	710	208	53	100.0	62.0	27.8	8.1	2.1
Hospital Based	1,318	811	272	175	61	100.0	61.5	20.6	13.3	4.6
Proprietary	724	322	296	80	26	100.0	44.5	40.9	11.0	3.6
Private Nonprofit	3,285	1,721	1,101	353	111	100.0	52.4	33.5	10.7	3.4
Other	233	162	37	24	10	100.0	69.5	15.9	10.3	4.3
1977—All Agencies										
Total	15,548	8,888	4,599	1,536	527	100.0	57.1	29.6	9.9	3.4
Visiting Nurse Association	5,655	3,385	1,616	474	181	100.0	59.8	28.6	8.4	3.2
Combined Government and Voluntary	366	230	93	28	15	100.0	62.8	25.4	7.7	4.1
Government	2,068	1,782	878	244	65	100.0	60.0	29.6	8.2	2.2
Hospital Based	1,565	938	356	203	68	100.0	59.9	22.7	13.0	4.3
Proprietary	846	398	325	95	29	100.0	39.9	43.5	12.7	3.9
Private Nonprofit	3,800	1,918	1,256	465	161	100.0	50.5	33.1	12.2	4.2
Other	347	235	76	27	9	100.0	67.7	21.9	7.8	2.6
Percent Increase 1975-77										
Total	43.9	33.7	61.9	48.1	87.5	—	—	—	—	—
Visiting Nurse Association	24.1	15.1	47.6	16.5	61.6	—	—	—	—	—
Combined Government and Voluntary	10.2	8.0	27.7	−6.7	200.0	—	—	—	—	—
Government	27.3	19.4	43.9	29.8	66.7	—	—	—	—	—
Hospital Based	35.0	26.2	72.8	26.9	33.3	—	—	—	—	—
Proprietary	40.3	51.9	27.0	35.7	81.2	—	—	—	—	—
Private Nonprofit	129.5	115.7	127.5	180.1	228.6	—	—	—	—	—
Other	96.0	126.0	61.7	50.0	—	—	—	—	—	—

Note: Detail may not add to totals because of rounding.

Private nonprofit agencies showed significant differences from other agencies in the number of visits provided to their clients, the proportion of clients receiving the different types of HHA visits, and the charges for the services. As shown in the following table, in 1977, private nonprofit agencies furnished more visits, on the average, to the persons they served than did other agencies. In fact, among the major types of HHA's, the average number of visits furnished by private nonprofit agencies exceeded those furnished by the others by about one-third. In addition, private nonprofit agencies had the highest average charge per visit for each type of service, and the highest average total charges incurred per person served by the agency.

Visits and Charges by Type of Visit, 1977	All Agencies	Visiting Nurse Association	Combined Government and Voluntary	Government	Hospital Based	Proprietary	Private Nonprofit	Other
	Average Number of Visits per Person Served							
Total	22.5	20.7	18.7	20.9	21.0	26.6	28.4	23.4
Nursing Care	12.9	12.4	11.8	12.6	12.6	12.5	14.3	15.8
Home Health Aide	20.5	20.5	19.4	22.5	19.3	20.4	19.8	20.7
Physical Therapy	9.9	8.4	8.8	8.9	9.9	11.2	11.8	10.8
Other	5.8	5.7	11.5	7.6	5.3	4.1	5.8	8.3
	Percent of HHA Clientele Receiving Specified Type of Visit							
Nursing Care	95.8	97.1	96.9	96.2	96.1	92.8	93.1	95.3
Home Health Aide	32.5	28.9	24.5	27.6	24.7	50.0	47.4	24.8
Physical Therapy	22.5	20.6	16.3	17.4	27.4	27.0	29.4	16.8
Other	13.1	11.6	6.6	6.0	17.0	22.3	20.8	8.7
	Average Charge Per Visit							
Total	$25	$21	$24	$20	$29	$28	$31	$23
Nursing Care	26	22	26	22	29	31	32	24
Home Health Aide	21	18	19	16	28	24	28	19
Physical Therapy	28	22	23	21	32	33	34	24
Other	30	27	24	22	36	34	36	24
	Total Charges Incurred per Person Served							
Total	$559	$443	$450	$422	$618	$757	$878	$532
Nursing Care	345	287	317	289	381	419	491	396
Home Health Aide	440	372	374	354	545	480	545	388
Physical Therapy	275	189	205	207	317	366	407	261
Other	174	152	278	168	193	137	206	169

The average number of visits per person receiving any specific type of visit is similar among the agencies. If one type of service obviates, to any degree, the need for another, one would expect a wider range in the averages than is apparent—given the wide disparity among the agencies in the proportion of clients receiving the different types of visits. (For example, private nonprofit and proprietary agencies furnished home health aide visits to a much higher proportion of their clients than do the others.) The data seem to suggest that there is little substitutability among the different types of HHA visits. Thus, the provision of any type of visit to a client appears to be additive to any other type of visit the client may be receiving. The effect of this pattern is particularly noticeable among the private nonprofit agencies. As noted above, the private non-profit agencies have the highest average number of visits per person served. Their average charge per visit was the highest for each type of visit. The total charge incurred per person served was also highest for the private nonprofit agencies.

The overall impact of this pattern is shown in the following table. Private nonprofit agencies accounted for a higher proportion of the visits (24.4 percent) and charges (30.5 percent) under the program than the proportion of clients served (19.4 percent). Between 1975 and 1977, private nonprofit agencies accounted for 45 percent of the program-wide increase in HHA visits and visit charges.[6]

[6] See Wayne Callahan, *Medicare: Utilization of Home Health Services, 1975; Research and Statistics Note* No. 2; Health Care Financing Administration; Office of Policy, Planning and Research, June 1978.

Percent Distribution by Type of HHA	All Agencies	Visiting Nurse Association	Combined Government and Voluntary	Government	Hospital Based	Proprietary	Private Nonprofit	Other
Persons Served by Type of HHA	100.0	39.6	2.8	20.6	10.8	4.6	19.4	2.2
Visits by Type of HHA	100.0	36.4	2.4	19.1	10.1	5.4	24.4	2.2
Visit Charges by Type of HHA	100.0	31.4	2.3	15.5	11.9	6.3	30.5	2.1

AVAILABILITY OF NURSING SERVICES

The number of nurses employed by home health agencies in a particular area relative to the number of beneficiaries residing in the area provides a rough measure of the geographic differences in the availability of nursing services through home health agencies (Table 11). Nationally, participating agencies reported less than one (.81) employed nurse for every 1,000 enrollees. Only the agencies in New England, Middle Atlantic, and East South Central States reported one or more nurses employed per 1,000 persons enrolled in Medicare. In contrast, agencies in the Pacific States averaged less than one-half nurse for every 1,000 enrollees. Nursing personnel accounted for the majority of the total staff employed by home health agencies and represented the source of the most common service rendered. Agencies tended to employ nurses and contract for the other therapeutic services. Data on the number of contractual staff were not collected.

Nationally, an average of 25 beneficiaries out of every 1,000 persons enrolled received nursing visits. By geographic division, 42.2 persons per 1,000 enrolled in the New England States received nursing visits compared to 16.7 persons per 1,000 enrolled in the West North Central States.

The average number of nursing visits per person served ranged from 16.4 in the West South Central States to 11.0 in the Pacific States. All other census divisions were close to the national average of 13.3 visits per person served.

The data show that those divisions that ranked high in the number of nurses employed by HHA's per 1,000 beneficiaries enrolled tended to rank high in the proportion of beneficiaries receiving nursing visits from HHA's.[7] On the other hand, there was no correlation between the relative number of nurses employed and the number of nursing visits per person served. The data suggest that the higher the relative number of nurses employed, the higher the proportion of beneficiaries in the service area that received nursing visits.[8]

[7] The application of the Spearman rank correlation to the data resulted in a coefficient of $r_s = .66$ ($p < .05$, one tailed test). This provides a descriptive measure of the association between the variables. Where application of standard errors to the number of persons receiving nursing visits resulted in overlapping ranges for the number served per 1,000 enrolled, the ranks were handled as ties.

[8] Once a person has been served by a nurse, the number of nursing visits received is probably not conditioned by the supply of nurses. Such factors as the distribution of conditions being treated by HHA's in an area and the criteria used to determine the appropriate number of visits would be more determinant of the average number of visits received. The data do not permit analyses of how either of these factors interact to result in the relatively narrow spread of nursing visits received by persons served.

TABLE 11

Number of Persons Enrolled,[1] Participating Home Health Agencies, Nurses Employed,[2] and Nursing Visits, by Division, 1977

Division	Persons Enrolled (in thousands)	Number of Agencies	Nurses Employed		Persons Receiving Nursing Visits		Nursing Visits		
			Number	Per 1,000 Enrolled	Number (in thousands)	Per 1,000 Enrolled	Number (in thousands)	Per 1,000 Enrolled	Per Person Served
United States	25,931	2,758	20,891	.81	651	25.1	8,657	334	13.3
New England	1,553	325	2,554	1.64	66	42.2	898	578	13.6
Middle Atlantic	4,735	280	4,734	1.00	156	33.0	1,972	416	12.6
East North Central	4,680	416	2,838	.61	99	21.3	1,338	286	13.5
West North Central	2,274	335	1,540	.68	38	16.7	521	229	13.7
South Atlantic	4,221	380	3,371	.80	100	23.7	1,299	308	13.0
East South Central	1,731	298	2,147	1.24	44	25.2	695	401	15.9
West South Central	2,462	208	1,502	.61	44	18.0	728	296	16.4
Mountain	1,017	120	702	.69	24	23.2	329	324	14.0
Pacific	3,229	196	1,503	.47	80	24.6	876	271	11.0

[1] Persons enrolled in the Hospital Insurance and/or Supplementary Medical Insurance Programs as of July 1977. U.S. total includes residence unknown.

[2] Registered professional nurses expressed in terms of full time equivalents; employment based on agency records as of June 1979.

Analysis of the data also shows no correlation between use of HHA services and the number of agencies or the number of agencies relative to the enrolled Medicare population. Home health agencies are characterized by heterogeneity. Agencies vary considerably in size (measured by the number of employed staff), in the range of services provided, and in the number of patients served. Most HHA's are not limited to a Medicare clientele and serve a wider clientele than just Medicare beneficiaries. Thus, the association between the nurses employed by HHA's and the use of nursing services through HHA's by Medicare beneficiaries cannot be clearly interpreted at this time.

Conclusions

The use of home health services under Medicare has been increasing significantly since the passage of the 1972 Social Security Amendments. The number of home health visits tripled between 1972 and 1977, and program reimbursements for HHA services more than quintupled.

Between 1975 and 1977, the number of private non-profit agencies increased almost 60 percent with little change in the number of other types of agencies. Accompanied by the increase in the number of private non-profit agencies were large relative and absolute increases in visits provided by this type of agency. Private non-profit agencies accounted for about 45 percent of the total increase in HHA visits provided between 1975 and 1977. These agencies furnished more home health visits per person served by the agency than any other type of agency, and had the highest average charge per visit as well as the highest total incurred charges per person served. These agencies also accounted for 45 percent of the increase in charges billed to the Medicare program between 1975 and 1977.

There is little indication of substitution among types of HHA visits. The provision of any one type of visit does not seem to affect the number of visits of another type.

The data also suggest that greater HHA resources (as measured by HHA employed nurses per 1,000 beneficiaries enrolled) are associated with a higher proportion of the beneficiaries in the area receiving nursing services. Such questions as: (1) the relationship between the nurses employed by HHA's and the overall supply of nurses in the area; (2) the significance of the non-Medicare population among agency clientele; and (3) the absence of accepted measures of defining the need of HHA furnished nursing services prevent the drawing of clear inferences from this association.

Acknowledgment

This report was written by Wayne Callahan, previously with the Office of Research but currently with the Office of Statistics and Data Management. Chapter III was written with Herbert Silverman, Chief, Program Statistics Branch. This report is one of a series prepared in the Office of Research, Judith Lave, Director, to provide a description and analysis of the use and cost of the health care benefits furnished to the beneficiaries of the Medicare and Medicaid programs administered by the Health Care Financing Administration. The report was written under the administrative supervision of Allen Dobson, Director, Division of Beneficiary Studies.

Acknowledgement for assistance is made to Irving Goldstein, and Mae Robinson of the Office of Statistics and Data Management for computer services; to Kathryn D. Barrett, Vikki Latta, Betty Gunn, and Cheryl Black for statistical services; and to Adele Deaver for typing services.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
HEALTH CARE FINANCING ADMINISTRATION

Form Approved
OMB No. 066-R0016

HOME HEALTH AGENCY REPORT AND BILLING
HOSPITAL AND MEDICAL INSURANCE BENEFITS—SOCIAL SECURITY ACT

NOTICE: Anyone who misrepresents or falsifies essential information requested by this form may upon conviction be subject to fine and imprisonment under Federal law.

1. PATIENT'S LAST NAME	FIRST NAME	MI	2. HEALTH INSURANCE CLAIM NUMBER

3. PATIENT'S ADDRESS (Street number, City, State, Zip Code)	4. DATE OF BIRTH	5. SEX
	__ __ / __ __ / __ __	☐ M ☐ F

6. HOME HEALTH AGENCY NAME AND ADDRESS	7. PROVIDER NO.	9. NAME AND ADDRESS OF ATTENDING PHYSICIAN
	8. MEDICAL RECORD NO.	

10. DATE CARE STARTED	11. NAME AND ADDRESS OF INSTITUTION, IF ANY, CARING FOR CONDITION LATER REQUIRING HOME HEALTH SERVICES	12. VERIFIED DATES OF STAY IN ITEM 11 FROM / TO	13. DATE HOME HEALTH PLAN ESTABLISHED
__ __ / __ __ / __ __		- - / - - / - - / - - / - - / - -	__ __ / __ __ / - -

14. PAYMENT SOURCE FOR CHARGES TO PATIENT

A. ☐ SELF OR FAMILY
B. ☐ PRIVATE INSURANCE
C. ☐ BLUE CROSS BLUE SHIELD
D. ☐ EMPLOYER OR UNION
E. ☐ PUBLIC AGENCY (Give name)
F. ☐ OTHER (Explain)

15. PATIENT'S CERTIFICATION: AUTHORIZATION TO RELEASE INFORMATION AND PAYMENT REQUEST: I certify that the information given by me in applying for payment under Title XVIII of the Social Security Act is correct. I authorize release of all records required to act on this request. I request that payment of authorized benefits be made in my behalf.

SIGNATURE (Patient or authorized representative) (Signature by mark must be witnessed)	DATE

16. DIAGNOSES	EMPLOYMENT RELATED	A. ☐ YES B. ☐ NO	(If yes, give name and address of employer.)	LEAVE BLANK

17. STATEMENT COVERS PERIOD FROM	TO	18. DATE OF FIRST VISIT	DATE OF LAST VISIT	19. PATIENT	20. DATE APPLICABLE TO ITEM 19
__ __ / __ __ / __ __	__ __ / __ __ / __ __	__ __ / __ __ / __ __	__ __ / __ __ / __ __	☐ DISCHARGED ☐ STILL RECEIVES SERVICES ☐ DIED ☐ VISITS EXHAUSTED	__ __ / __ __ / __ __

21. STATEMENT OF SERVICES RENDERED	POST-HOSPITAL PLAN NO. VISITS	POST-HOSPITAL PLAN CHARGES	MEDICAL PLAN NO. VISITS	MEDICAL PLAN CHARGES
PRIMARY PURPOSE OF VISIT				
A. Skilled Nursing Care		$		$
B. Physical Therapy				
C. Speech Therapy				
D. Occupational Therapy				
E. Medical Social Services				
F. Home Health Aide				
G. Other Visits (Specify)				
H. Total No. of Units of Service				
I. Charge per unit of Service $				
J. TOTALS		$		$
K. Other (Specify)				
L. TOTAL CHARGES		$		$
M. AMOUNT PAID BY PATIENT				$

22. POST-HOSPITAL PLAN	23. MEDICAL PLAN
A. TOTAL CHARGES	A. VERIFIED DEDUCTIBLE
B. REIMBURSEMENT RATE	B. VERIFIED COINSURANCE
C. REIMBURSEMENT AMT. A TIMES B	C. TOTAL CHARGES
	D. REIMBURSEMENT RATE
	E. C TIMES D
	F. E LESS A
	G. REIMBURSEMENT AMT. 80% OF F
	H. REFUND TO PATIENT
	I. NET AMOUNT TO AGENCY, G LESS H

I certify that required physician's certification and recertifications are on file.

SIGNATURE OF HOME HEALTH AGENCY REPRESENTATIVE	DATE FORWARDED	APPROVED BY	DATE APPROVED
	__ __ / __ __ / __ __		__ __ / __ __ / __ __

FORM HCFA-1487 (5) (11-69) (FORMERLY SSA-1487 (5)

Appendix B

Sources and Limitations of Data

Data in this report were obtained from billing forms submitted by home health agencies for Medicare beneficiaries receiving reimbursable services. Data shown are estimates based on a 40 percent sample of the enrolled population and hence are subject to sampling variability.[9]

Data presented in this report for 1977 are based on bills submitted and recorded in SSA through December 1978. The sample counts for 1977 have been inflated to give an estimate of the use of home health services as of that date. The file is incomplete to the extent that approximately 2 percent of the bills for 1977 had not been submitted for payment as of December 1978.

Only payments for covered services provided to beneficiaries are reflected in the amounts reimbursed; costs of program administration, deductibles, and non-covered services are excluded.

Payments for home health services shown in this report are based on interim rates that are adjusted after the end of the accounting year on the basis of reasonable costs of operation.

Information from the billing forms is matched to SSA's beneficiary enrollment file and to a master provider file which describes the characteristics of each agency.

Appendix C

The tables in Appendix C show approximate standard errors for some of the more important estimates presented in this report. The standard error is primarily a measure of sampling variability, that is, of the variation that occurs by chance, because a sample rather than the whole population is used. In order to calculate the standard errors at a reasonable cost, approximate methods were used. Thus, these tables should be used only as indicators of the order of magnitude of the standard error for specific estimates.

In general, estimates of small totals, small percentages or means, and percentages or means with small bases or for small subgroups tend to be relatively unreliable. However, because of the large sample used for estimates in this report, very few estimates are likely to have relative standard errors greater than 10 percent.

[9] The reliability of estimates was prepared by James Beebe, Statistical and Research Services Branch, Division of Economic Analysis, Office of Research.

Standard Error Tables

TABLE C.1.

Approximate Standard Error of Number of Persons Served

Estimated Number of Persons Served	Standard Error of Estimate
1,000	40
10,000	130
50,000	290
100,000	400
200,000	570
400,000	800

TABLE C.2.

Approximate Standard Error of Number of Visits

Estimated Number of Visits	Standard Error of Estimate
5,000	890
10,000	1,300
50,000	3,000
100,000	4,300
500,000	10,000
1,000,000	15,000
4,000,000	31,000
8,000,000	38,000

TABLE C.3.

Approximate Standard Error of Amount of Total Charges, Visit Charges, or Reimbursement

Estimate of Charges	Standard Error of Estimate
$50,000	$10,000
100,000	14,000
500,000	35,000
1,000,000	53,000
10,000,000	220,000
30,000,000	470,000
100,000,000	710,000
150,000,000	720,000

Health Care Financing Program Statistics

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HCFA Pub. No. 03064
January 1981